

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

CENTRIPETAL NETWORKS, LLC,)	
)	
Plaintiff,)	No. 2:21-cv-00137-EWH-
)	LRL
vs.)	
)	
PALO ALTO NETWORKS, INC.,)	
)	
Defendant.)	
)	
)	
_____)	

**DEFENDANT’S MEMORANDUM IN SUPPORT OF ITS RENEWED AND
ADDITIONAL MOTION FOR JUDGMENT AS A MATTER OF LAW**

I. INTRODUCTION

Pursuant to Fed. R. Civ. P. 50(a), Defendant Palo Alto Networks, Inc. (“PAN”) moves for judgement as a matter of law (“JMOL”) in favor of PAN that all asserted claims of the ’903, ’573, and ’797 Patents are unpatentable under 35 U.S.C. § 101. In addition, PAN renews (and incorporates herein by reference) its initial motion for JMOL (ECF No. 820) filed at the close of Plaintiff Centripetal Networks, LLC’s (“Centripetal”) case-in-chief, as the evidence presented during PAN’s case-in-chief further confirms the evidentiary failings in Centripetal’s case-in-chief and thus PAN’s entitlement to judgment.

II. ARGUMENT¹

A. Patent Ineligibility

Whether a claim is unpatentable under 35 U.S.C. § 101 because it “recites patent eligible subject matter is a question of law which *may* contain disputes over underlying facts.”² *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018); *see also id.* at 1365. Under the two-step *Alice* analysis, the court must first determine, as a matter of law, whether the claims are directed to a patent-ineligible concept, such as an abstract idea. *Id.* at 1366. Thus, step one is aimed at distinguishing claims whose focus is an abstract idea from those that “integrate the [idea] into something more.” *Id.* If the court determines the claims are directed to an abstract idea, step two requires consideration of whether the claims include “additional elements” beyond the abstract idea—often referred to as an “inventive concept”—that “transform the nature of the claim[s] into

¹ All emphasis added unless otherwise stated.

² The Federal Circuit has not expressly held that the jury need address any underlying factual questions related § 101 patent eligibility, and it has affirmed district court’s post-verdict § 101 determinations. *See, e.g., Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016) (“*Symantec*”) (affirming final judgment of patent ineligibility under § 101 entered pursuant to Rule 52(a) motion in favor of Symantec, despite the jury not addressing that issue).

a patent-eligible application” of the abstract idea. *Berkheimer*, 881 F.3d at 1366.³ While the question of whether the claims recite an inventive concept, is ultimately a question of law, it may be informed by underlying factual determinations as to “whether the claim limitations *other than* the invention’s use of the ineligible concept” (*i.e.*, the alleged abstract idea) “were well-understood, routine, and conventional.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). “When there is no genuine issue of material fact [on this issue],” however, patent eligibility should be decided “as a matter of law.” *Id.*

The Asserted Claims of the ’903, ’573, and ’797 Patents (collectively, “Correlation Patents”) are directed to an abstract idea, and they contain no “inventive concept.” As a result, the claims are unpatentable under 35 U.S.C. § 101 as a matter of law.

1. Alice Step One—The Claims Are Abstract

Courts considering step one have found claims abstract where they are directed to “a wide variety of well-known and other activities,” including in the computer field. *Symantec*, 838 F.3d at 1314, n.5 (Fed. Cir. 2016) (collecting cases). Here, as explained in PAN’s Rule 12(c) Motion, the focus of the Asserted Claims of the ’903, ’573, and ’797 Patents is collecting information about packets received and transmitted by a network device and comparing that information to “correlate” the packets, in order to achieve the result of identifying the source of the packets. *See* ECF No. 456 at 3-6, 12-13; *see also* ECF No. 560 at 4-8. The Federal Circuit has long held that “claims focused on ‘collecting information, analyzing it, and displaying certain results of the collection and analysis’ are directed to an abstract idea.” *See, e.g., SAP Am. Inc. v. Investpic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016) (collecting cases). That the “information” here relates to packets does not

³ *See also BSG*, 899 F.3d 1289-90 (abstract idea “cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept”).

render the claims non-abstract. *SAP*, 898 F.3d at 1166 (“claims focused on ‘collecting information, analyzing it, and displaying certain results of the collection and analysis’ are directed to an abstract idea”); *Bridge & Post, Inc. v. Verizon Commc’ns, Inc.*, 778 F. App’x 882, 889, 892-93 (Fed. Cir. 2019) (claims reciting generating and embedding alphanumeric string “in an extensible field of a packet” are abstract); *Two-Way Media v. Comcast Cable Comms.*, 874 F.3d 1329, 1334-35, 1338-39 (Fed. Cir. 2017) (claims for routing/monitoring “digital packets” abstract).

The results-focused, functional character of the claims further demonstrates that they are abstract. In particular, the claims do not recite any specific detail or technique as to how log entries are determined/generated, how “correlation” is achieved through comparison of log entries, nor how generating a rule or indication identifying the source of packets is accomplished. ECF No. 456 at 3-8, 14-15. Claims such as these, which “do no more than describe a function or outcome, without providing any limiting detail” concerning the implementation are “directed to an abstract idea.”⁴ *Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269-70 (Fed. Cir. 2016).

Thus, as the ITC held in considering a materially indistinguishable related patent, the claims are directed to an abstract idea because the claimed “correlating” step “simply compares information about one packet with information about another packet to determine whether the packets are from the same packet flow” and “the claims do not require ‘concrete implementation’ for performing the correlation, nor does the specification disclose any ‘concrete implementation’ ... that would explain how the claimed ‘correlation’ is achieved.” *In re Certain Comput. Network*

⁴ Another factor courts routinely rely on at step one is whether claims are directed to a computer-implemented version of a process humans historically performed manually. *Repifi Vendor Logistics, Inc. v. IntelliCentrics, Inc.*, 2022 WL 794981, at *3 (Fed. Cir. Mar. 15, 2022) (“automation of a long-standing human process cannot be the inventive concept because such automation is itself an abstract idea”). Here, as Dr. Cole testified, correlation and rule generation is merely “simulating what humans would normally do . . . by going in and learning from all of the data.” Trial Tr. 625:22-626:7.

Sec. Equip. & Sys., Related Software, Components Thereof, & Prods. Containing Same (“*Keysight ITC*”), USITC Inv. No. 337-TA-1314, 2023 WL 5744218, at *73 (Aug. 8, 2023).

2. *Alice Step Two—The Claims Lack An Inventive Concept*

“[A] claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept;” thus, the focus of the step two inquiry is whether the claims include “additional elements” ***beyond the abstract idea*** that “transform the nature of the claim[s] into a patent-eligible application” of that idea. *BSG Tech*, 899 F.3d at 1289-91. And courts have repeatedly held that merely implementing the abstract idea using “well-understood, routine, and conventional” computer hardware and/or computer functions is not sufficient. *See, e.g., Berkheimer*, 881 F.3d at 1370 (holding claims lacked an inventive concept because they “amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components”).⁵

The asserted claims of the Correlation Patents do not include any additional elements beyond the abstract ideas discussed above that “transform[s] the nature of the claim[s] into a patent-eligible application” of the abstract idea. *Berkheimer*, 881 F.3d at 1366; *see also* ECF No. 456 at 20-22; ECF No. 560 at 8-9. As explained in PAN’s Rule 12(c) Motion, this question can—and should—be resolved on the basis of the patents alone because there is no genuine issue of material fact as to whether the “additional elements” beyond the abstract idea would have been considered well-understood, routine, and conventional at the relevant time. *See* ECF No. 456 at 3-8, 20-23; ECF No. 560 at 8-10. The patents themselves demonstrate that beyond the abstract idea—

⁵ *See also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016) (holding a claim fails at *Alice* step 2 because it “simply recites the use of generic features . . . as well as routine functions . . . **to implement** the underlying idea”); *Two-Way Media*, 874 F.3d at 1339 (holding a claim “reciting an abstract idea performed on a set of generic computer components . . . [does] not contain an inventive concept”).

i.e., the collection and analysis of packet-related information to identify the source of packets—the claims merely recite conventional computer elements, including a “computing system/device,” “processor,” “memory,” “instructions,” “network device,” “host,” “packet-filtering device,” “network,” “log entries,” and “rules.” ECF No. 456 at 3-8, 20-21.⁶ And the specification provides no meaningful technical detail, instead confirming that the recited components are generic, conventional hardware and/or software. *Id.* at 3-8. In light of this evidence in the patents themselves, there is no material issue of fact as to whether the claims recite implementing the claimed idea using anything more than conventional computer components and/or functions.⁷ *See, e.g., Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (holding that claims lacked an “inventive concept” because “[n]othing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information”).

That said, the testimony of Dr. Goodrich and Dr. Nielson, confirms that the computer components recited in the claims are merely conventional computer devices used to perform conventional computer functions. *See* Trial Tr. 285:7-290:21 (Goodrich agreeing that recited computer components were “commonplace”); Trial Tr. 1575:2-1593:20 (Nielson testifying that recited computer components/functions were conventional); *see also* Trial Tr. 1780:18-1781:25.⁸

⁶ *See also Keysight ITC*, 2023 WL 5744218, at *71 (“[T]he recitation of ‘packets’ and other conventional computer technology . . . does not save the asserted claims from reciting an abstract idea of collecting information, analyzing it, and communicating the results.”).

⁷ The testimony of David Ahn and Jonathan Rogers concerning purported use of “specialized” hardware is irrelevant because the claims do not recite specialized hardware. *See* Trial Tr. 446:23-447:6; *id.* 1755:1-1756:5. Rather, as explained above, the claims and the specification demonstrate that the recited computer components are conventional devices. *See* ECF No. 456 at 3-8.

⁸ Dr. Goodrich’s contrary assertions are conclusory and unsupported by the specification or the claims. *See* Trial Tr. 1768:21-1769:20, 1780:14-17. As a result, they are insufficient to support a finding that the claims recite implementing the abstract idea using something more than conventional computer components/functions.

The Federal Circuit has repeatedly held that merely reciting an abstract idea performed using generic, conventional computer components does not infuse the claim with an inventive concept. *See, e.g., Two-Way Media*, 874 F.3d at 1339.

Moreover, the claimed rules “configured to identify packets received from the first host” cannot provide an inventive concept because they “merely describe the functions of the abstract idea itself.” *Intell. Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017); *see FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016). Similarly, the claimed correlation of packets provides nothing inventive either, as it is accomplished by the abstract process of comparing log entries, with no other specificity. *See Clarilogic, Inc. v. FormFree Holdings Corp.*, 681 F. App’x 950, 954-55 (Fed. Cir. 2017) (holding claim ineligible that recited an “unknown” process to allegedly transform data).⁹ Indeed, the claims do not disclose any detail for how the correlation is achieved. “Such vague, functional descriptions ... are insufficient to transform the abstract idea into a patent-eligible invention.” *In re TLI Commc’ns*, 823 F.3d 607, 615 (Fed. Cir. 2016).

The arrangement of the claim elements also cannot supply an inventive concept given the specification’s acknowledgement that (a) “[t]he functionality may be distributed in any manner or may be located in a single computing device,” JX-003 at 15:6-8, and (b) “[a]ny and all features in the following claims may be combined or rearranged in any way possible,” *id.* at 15:17-19. *See also* Trial Tr. 1782:1-1784:19 (Goodrich acknowledging same); *Affinity Labs*, 838 F.3d at 1271 (Fed. Cir. 2016) (statement in specification that invention was “not limited to any specific configuration” confirmed lack of inventive concept).

⁹ *MacroPoint, LLC v. FourKites, Inc.*, 2015 WL 6870118, at *5 (N.D. Ohio Nov. 6, 2015), *aff’d*, 671 F. App’x 780 (Fed. Cir. 2016) (“[c]orrelating” is non-inventive, as it simply connotes the ascertaining of a relationship between two pieces of information.”).

Dr. Goodrich nonetheless asserted that “the asserted claims of these correlation patents . . . are not routine, well-known, or conventional.” Trial Tr. 1766:14-23. That testimony is insufficient to support a finding that the “additional elements” of the claims were *not* well-understood, routine, or conventional, however, because Dr. Goodrich relied on concepts that are part of the abstract idea or not part of the claims. Trial Tr. 1767:6-16, 1767:24-20, 1771:3-14, 1772:9-24, 1773:8-19. For example, Dr. Goodrich asserted that “actionable correlation”—which he described as correlation that “gives the system [the] ability to respond” by “identify[ing] a malicious host” and generating rules that can “deal with such malicious activities”—was unconventional at the relevant time. *Id.* 1767:6-16. But analyzing data (through correlation or otherwise) and taking a responsive action is itself abstract. *See Electric Power Group*, 830 F.3d at 1351-52 (holding abstract claims directed to analyzing power-grid data to detect events and, in response, deriving an indicator of power grid vulnerability). And despite Dr. Goodrich’s assertion, the claims *do not* provide a way to distinguish a “malicious host” from a non-malicious host, nor recite generating rules that “can deal with such malicious activities.” Rather, the claims generically recite identifying a host and generating a rule to identify packets from that host. *See* ECF No. 456 at 3-8. Centripetal’s proffered expert testimony is therefore legally insufficient to support a finding that the “additional elements” of the claims are non-conventional. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“§ 101 inquiry must focus on the language of the Asserted Claims themselves.”); *BSG Tech*, 899 F.3d at 1290-91 (“If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.”). Accordingly, PAN is entitled to JMOL that the Asserted Claims of the Correlation Patents are unpatentable under § 101.

B. No Willful Infringement For All Asserted Patents

As explained in PAN’s initial motion for JMOL (ECF No. 820), which PAN renews and

incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a finding that PAN willfully infringed the Asserted Patents, and therefor PAN is entitled to JMOL of no willful infringement. ECF No. 820 at 1-4.

In its Opposition to PAN's initial Motion, Centripetal erroneously contends that "knowledge of the specific asserted patents is not required to support a finding of willful infringement." ECF No. 825. But Centripetal cites only a single, non-binding decision that lends any support for that assertion. *Id.* at 9-10. All binding precedent—as well as the two other non-binding decisions Centripetal cites—hold that willfulness requires knowledge *of the patents-in-suit*. See, e.g., *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341 (Fed. Cir. 2016) ("Knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages.").¹⁰ Regardless, the evidence presented in Centripetal's case-in-chief fails to provide a sufficient evidentiary basis for the jury to find that PAN had knowledge of any Centripetal patents.

First, as explained in PAN's initial Motion, there is no evidence in the record that the parties' limited 2016-2017 interactions included any reference to any Centripetal patent or "patented technology," and Centripetal's contrary assertion in its Opposition is wholly unsupported. See ECF No. 820 at 1-2; ECF No. 825 at 10. Further, the testimony of Mr. Steven Rogers—the only witness with personal knowledge of those interactions—confirms that the communications *did not* relate to any Centripetal patents nor patented technology. See Trial Tr. 1566:8-11 (referencing Steven Rogers deposition testimony previously submitted to the Court);

¹⁰ See also *Kewazinga Corp. v. Microsoft Corp.*, 558 F. Supp. 3d 90, 119 (S.D.N.Y. 2021) ("Knowledge is defined for the purpose of willful infringement as *knowledge of the allegedly infringed patent* and its claims.") (internal citations and punctuation omitted); *SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 396 F. Supp. 3d 323, 334 (S.D.N.Y. 2019) ("*Knowledge of the patent alleged to be willfully infringed* continues to be a prerequisite to enhanced damages.").

see also Trial Tr. 1270:6-10 (Mr. Nir Zuk testifying that PAN had no pre-suit knowledge of the Asserted Patents).

Second, Centripetal’s assertion that evidence of marking is sufficient to support a jury finding that PAN had knowledge of the Asserted Patents is contrary to law. *Nike, Inc. V. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1446 (Fed. Cir. 1998) (“However, the issue of willfulness turns on the actual knowledge of the infringer, and is unrelated to the adequacy of constructive notice by the patentee” via product marking).¹¹ In addition, there is no evidence in the record to support a finding that Centripetal marked its products with the Asserted Patents at any time before the Complaint was filed in this action. *See* ECF No. 820 at 3.

Centripetal asserts in its Opposition that it presented several other categories of purported evidence, but the cited testimony and exhibits lack any connection to PAN or the Asserted Patents (or in some instances, both). For example, Centripetal asserts that “Jonathan Rogers testified towards PAN’s knowledge of Centripetal’s related patents” and “prior litigation against PAN’s competitor.” ECF No. 825 at 11. But Mr. Rogers testimony did not address “related patents” and the court has already held that, “without some connection to PAN and the Asserted Patents,” the existence of prior litigation is “too speculative to permit an inference of knowledge.” *See* ECF No. 702 at 19. Similarly, Centripetal points to Jonathan Rogers’ testimony concerning product “demos,” “Centripetal’s licensing policies,” and “Centripetal’s competition,” none of which bear any connection to PAN or the Asserted Patents. ECF No. 825 at 10-11.

¹¹ The single case Centripetal cites to assert that marking can support a finding of knowledge is inapposite because (a) the *3D Systems* court addresses sufficiency of evidence to survive a Rule 12 motion, not to support a jury finding; and (b) the court’s decision concerning the sufficiency of evidence in that case did not turn on marking, as there was direct evidence in the record that defendant “undertook efforts to uncover patents” in that area of technology. *3D Systems Inc. v. Formlabs*, 2014 WL 1904365, at *3-4 (S.D. N.Y. May 12, 2014).

Thus, as explained in PAN's initial Motion and herein, the evidence Centripetal presented is insufficient to support a finding PAN had pre-suit knowledge of any Asserted Patent or PAN had the requisite intent, and therefore PAN is entitled to judgment as a matter of law of no pre-suit willful infringement.

C. No Direct Infringement For The '903, '573, and '797 Patents

As explained in PAN's initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a finding that PAN directly infringes any Asserted Claim of the '903, '573, or '797 Patents, and therefore PAN is entitled to judgment of no infringement for those patents. ECF No. 820 at 4-6. In addition, the evidence presented during PAN's case-in-chief further demonstrates the evidentiary failings in Centripetal's case-in-chief. For example, the testimony of Mr. Nir Zuk, Dr. John Villasenor, and the inventors confirm that there is no need to perform the claimed correlation to match up what already arrived grouped together in a single record. Trial Tr. 1337:7-24; 1415:22-1417:10; 1425:21-1433:24; *see also id.* 1368:18 (playing Perry Dep. 33:10-18), *id.* 1510:13 (playing Geremia Dep. 68:06-68:13, 68:15-68:23, 70:25-71:03, 71:05-71:13, 71:15-71:18).

Further underscoring Centripetal's failings, Centripetal now erroneously contends that PAN "does not dispute it infringes the 'responsive to' / 'based on' claim elements." ECF No. 825 at 2. But Centripetal ignores PAN's argument that relies upon the Court's claim construction and shows that any accused correlating must be "the impetus" for the remedial steps relating to identifying "***the first host.***" ECF No. 820 at 6.¹² Centripetal presented evidence that "**a** host" is

¹² See e.g., JX-3 at Claim 10 ("responsive to the correlating: generate an ***indication of the first host...***"); JX-4 at Claims 1, 9 ("responsive to the correlating...generate, based on the correlating, one or more rules configured to identify packets received ***from the host...***"); JX-5 at Claims 1, 12, 17 ("generate, based on the determined correlation, one or more rules configured to identify packets received ***from the first host...***").

identified following correlation, however, such identification is not proof that the accused correlating resulted in remedial steps relating to identifying “*the first host*.” Trial Tr. 578:7-580:7. PAN’s case-in-chief demonstrated the importance of identifying “the first host” due to packet modifications by a network device (e.g., NAT) that may obscure the identity of the first host. Trial Tr. 1411:18-1417:10. PAN then presented evidence demonstrating the evidentiary failings in Centripetal’s case-in-chief by showing that “*the first host*” is identified before any accused correlating. Trial Tr. 1418:8-1425:20. PAN also presented evidence that the NGFW would never perform the claimed correlation of packets transmitted with packets received to identify “*the first host*” because the NGFW extracts and stores identifying information relating to “the first host” when a packet is first received – not in response to correlating. Trial Tr. 1329:21-1330:24; 1425:2-20; 1425:21-1432:6.

Centripetal also failed to present evidence that Cortex XDR performs the claimed correlation of logs associated with a single “network device.” All claims require correlating log data corresponding to *packets received by* a network device and log data corresponding to *packets transmitted by* that same network device. *See Salazar v. AT&T Mobility LLC*, 64 F.4th 1311, 1317 (Fed. Cir. 2023) (“while the claim term ‘a microprocessor’ does not require there be only one microprocessor, the subsequent limitations referring back to ‘said microprocessor’ require that at least one microprocessor be capable of performing each of the claimed functions.”). Despite this claim requirement, Centripetal points to many different devices as the source for the log data, but never the same network device from which both transmit logs and receive logs relate. Trial Tr. 583:18 - 584:6. (“...We’re also accusing the Cortex product because the Cortex product doesn’t generate log entries but it receives log entries from *different devices* on the network.”). Further, the evidence PAN presented through documents and uncontested expert testimony confirms that

Cortex correlates data from multiple devices rather than logs corresponding to receive/transmit packets from the same network device. Trial Tr. 1338:17-1339:4; 1444:3-1445:16; 1446:2-1449:10; PX-192 at 013354, 13356-58 (logs from “all detection sensors”).

Finally, with respect to Claim 10 of the '903 Patent, Centripetal also failed to establish the required timestamp calculation as defined in the Court's claim construction. The Court's construction requires calculating an amount of time between *packet transmission time* and *packet receipt time*. Ignoring the Court's construction, Centripetal only identified an “elapsed” time value with no relationship to “packet transmission time.” Trial Tr. 568:24-569:23. PAN presented uncontested evidence demonstrating this “elapsed” time value fails to meet the claim requirements because “elapsed time” only represents an amount of time between receipt of a first packet at the firewall and the receipt of the last packet at the firewall for a session. Trial Tr. 1436:15-1439:3.

D. No Direct Infringement For The '437 Patent

As explained in PAN's initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a finding that PAN directly infringes Claim 8 of the '437 Patent, either literally or under the doctrine of equivalents, and therefore PAN is entitled to judgment of no infringement for that patent. ECF No. 820 at 6-10. In addition, the evidence presented during PAN's case-in-chief further confirms the evidentiary failings in Centripetal's claims, as a matter of law. For example, the testimony of Mr. Nir Zuk and Dr. John Villasenor confirmed that Panorama cannot meet the specific provision and configure functions of Claim 8. Trial Tr. 1301:12-1323:19; 1357:15-1360:3; 1375:20-1409:23; 1483:19-1504:13; 1508:16-1509:19.

In addition to the grounds previously raised, PAN is entitled to JMOL because the evidence of record is insufficient to support a jury finding that any PAN NGFW has been deployed as “a plurality of packet security gateways that collectively provide an entire interface across a boundary

of a network protected by the packet security gateway and one or more networks other than the network protected by the packet security gateway” *while* in Layer 2 mode. JX-2 at Claim 8.¹³ As an initial matter, Centripetal is wrong as a matter of law that this language can be met as long as a device could hypothetically be placed in such an arrangement as such as interpretation would remove the language as a limitation. As PAN explained in its MSJ, Centripetal relied on this language in both original prosecution and IPR and cannot now avoid it. ECF No. 462 at 16-17.

The Court previously denied PAN’s MSJ, finding “Centripetal points to several technical documents as evidence that NGFWs are deployed in a configuration that requires two or more firewalls” and this “this presents a genuine dispute of material fact that must be decided by the jury.” ECF No. 702 at 7-8. While PAN’s prior MSJ focused solely the “entire interface” limitation, it is not sufficient to look at that limitation in isolation. Claim 8 also recites “configuring the packet security gateway to: receive, *via a communication interface* of the packet security gateway *that does not have a network-layer address*,” which Centripetal sought to prove focusing solely on an NGFW in Layer 2 mode. Trial Tr. 935:20-936:11. Centripetal must, therefore, demonstrate proof of an NGFW in Layer 2 mode deployed as required by the “entire interface” limitation.

Centripetal presented no proof of any such deployment. Dr. Mitzenmacher cited to documentation for the propositions that Panorama is capable of managing multiple firewalls and that Panorama can manage firewalls deployed at the boundary point in the network, including to implement “Zero Trust.” Trial Tr. 898:3-15, 899:3-17, 899:3-17, 899:21-900:7, 901:15-902:14, 902:19-903:9, 903:24-904:13, 904:17-25. At no point did Dr. Mitzenmacher link any of these

¹³ The Court construed “a plurality of packet security gateways that collectively provide an entire interface across a boundary of a network protected” to require “two or more packet security gateways arranged such that there is no network path across a boundary of a network that bypasses the packet security gateways.” ECF No. 452 at 25-29.

documents to an NGFW deployed in Layer 2 mode. Mr. Zuk explained that NGFWs can operate in either the unaccused Layer 3 mode or the accused Layer 2 mode—and Layer 2 mode is not appropriate when implementing “zero trust” or at the edge of an unprotected network: “So if they deploy the firewall at the—between a trusted network and an untrusted network at the boundary, between a network that they trust, like their internal network, and a network that they don’t trust, like the Internet, they must deploy the firewall in layer 3 in order to achieve zero trust.” *Id.* 1308:25-1309:5; 1307:5-1309:10. Thus, Centripetal failed to present any evidence of an NGFW deployed in Layer 2 mode as required by the “entire interface” limitation, and the only relevant evidence confirms such a deployment cannot be assumed. Thus, PAN is entitled to JMOL.

E. No Induced Infringement For All Asserted Patents.

As explained in PAN’s initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed to present evidence sufficient to support a finding that PAN induces infringement of any Asserted Claim of any Asserted Patent, and nothing in PAN’s defense case presentation cured that failure. PAN is therefore entitled to judgment of no induced infringement for all Asserted Claims. ECF No. 820 at 10-12.

F. No Infringement of Asserted Method Claims Based On Foreign Sales

As explained in PAN’s initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed to present evidence sufficient to support a finding that PAN infringes the asserted method claims based on foreign sales, and nothing in PAN’s defense case changed that failure. PAN is therefore entitled to JMOL of no infringement of the asserted method claims based on such sales. ECF No. 820 at 12-13. In its opposition, Centripetal attempts to muddy the issue by pointing to evidence that accused NGFWs are made in the U.S., but as explained in PAN’s initial Motion, infringement of a method claim requires “use” of the claimed method “within the

United States.” ECF No. 820 at 12-13.¹⁴ Centripetal argues that it is nonetheless entitled to damages for foreign sales of products alleged to infringe these claims “*if the sales were made in the U.S.*” ECF No. 12-13 (citing *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1306 (Fed. Cir. 2015)). But with all the evidence in, the record is devoid of any evidence that such sales were made in the U.S. *See* ECF No. 820 at 12-13. Accordingly, PAN is entitled to JMOL that (a) PAN does not infringe claim 1 of the ’573 Patent and claim 1 of the ’797 patent based on foreign sales, and therefore (b) Centripetal cannot recover any damages for alleged infringement of those claims based on such sales.

G. No Infringement of Asserted Apparatus Claims Under Centripetal’s Combination-Based Infringement Theories

As explained in PAN’s initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a jury verdict that PAN infringes the asserted apparatus claims under Centripetal’s combination-based infringement theories, and therefore PAN is entitled to JMOL of no infringement of the asserted apparatus claims by the accused product combinations. ECF No. 820 at 13-14.

H. No Infringement, and Thus No Damages, With Respect To Foreign Sales Of Prisma Access, Cortex XDR, Cortex XSOAR, and Cortex XSIAM

As explained in PAN’s initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a jury verdict that PAN infringes any Asserted Claim with respect to foreign sales of Prisma Access or the Cortex products, and therefore PAN is entitled to JMOL of non-infringement based on such sales. ECF No. 820 at 13-14. Centripetal does not dispute that these products are made wholly or substantially outside the U.S. or that products sold to foreign customers are used outside the U.S.

¹⁴ *See also NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005) (“infringement of method claims under section 271(a) [is] limited to use”).

ECF No. 825 at 15-16. Instead, Centripetal points to evidence that *other accused products* are made in the U.S. or that U.S. customers use Prisma Access and/or Cortex products in the U.S. *Id.* But such evidence is legally insufficient to demonstrate infringement based on foreign sales of Prisma Access or the Cortex products. ECF No. 820 at 13-14. With respect to Prisma Access and Cortex products sold to foreign customers, the record is devoid of any evidence that such products are made, use, or sold in the U.S. *Id.* Therefore, PAN is entitled to JMOL of (a) non-infringement with respect to such sales, and (b) no damages based on such sales.

I. No Entitlement to Damages

As explained in PAN's initial motion for JMOL, which PAN renews and incorporates by reference, Centripetal failed in its case-in-chief to present evidence sufficient to support a finding that Centripetal is entitled to any reasonable royalty damages from alleged infringement of any Asserted Claim, and therefore PAN is entitled to JMOL of no damages. ECF No. 820 at 15-20. The evidence presented during PAN's case-in-chief further cemented the evidentiary failings in Centripetal's damages claims.

1. *There is no legally sufficient evidentiary basis to find the Keysight agreement comparable to the hypothetically negotiated agreement between Centripetal and PAN.*

Centripetal has failed to establish the comparability of the Keysight Settlement, the sole basis for Centripetal's damages model. *See* ECF No. 820 at 16-18. Both parties' experts testified that the Keysight Settlement was executed under economic circumstances vastly different from the hypothetical negotiation. For example, Mr. Malackowski and Mr. Bakewell both testified that the Keysight Settlement was negotiated in the middle of trial and settled Centripetal's claims against Keysight involving several Centripetal patents, none of which is asserted here. Trial Tr. 1168:5-1169:17, 1190:9-15, 1669:3-25. By contrast, the parties in the hypothetical negotiation are presumed to be willing to consummate a license, unencumbered by the threat of litigation. *See*,

e.g., Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324-25 (Fed. Cir. 2009) (explaining the “willing licensor-willing licensee” approach of the hypothetical negotiation); *see also* Trial Tr. 1068:24-1069:8 (Malackowski testimony about parties entering hypothetical negotiation willingly).

The experts likewise both testified that the Keysight Settlement contained fundamentally different terms than the hypothetical license between Centripetal and PAN, including that the Keysight Settlement: (1) was a portfolio license that conveyed rights to the entirety of Centripetal’s then-existing patent portfolio and future patents issued during the term of the license that included at least [REDACTED] (Trial Tr. 1173:3-1181:23. 1666:15-1672:3); (2) [REDACTED] (Trial Tr. 1171:11-172:13, 1669:3-20); (3) [REDACTED] (Trial Tr. at 1165:11-13, 1667:20-20-25); and (4) involved fundamentally different products and markets (Trial Tr. 1672:8-1677:4, 1453:20-1456:14). In contrast, the hypothetical license between Centripetal and PAN in this case would be limited to the Asserted Patents, would include no assurance that Centripetal would not assert infringement of unlicensed Centripetal’s patents, and would span the life of the patents. Trial Tr. 1198:2-1201:24, 1669:3-25; *see Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 974 (Fed. Cir. 2022) (finding expert’s reliance on discussions of one of five asserted patents and “silence on these equally situated patents is troubling and makes his opinion unreliable”); *see also Rex Med. v. Intuitive Surgical, Inc.*, No. 19-cv-0005, 2023 WL 6142254, at *10 (D. Del. Sept. 20, 2023) (finding plaintiff “failed to establish that a license is comparable to the hypothetical negotiation” because it could not identify value attributable to non-asserted patents).

The expert testimony from both parties also establishes that Centripetal disregards the Keysight Settlement’s specific annual maximum payments, and the corresponding total royalty

payments of only [REDACTED] made under the Keysight Settlement. Trial Tr. 1183:9-1184:17, 1666:11-1667:19. Centripetal failed to provide evidence soundly accounting for the fundamental differences between the Keysight Settlement and the hypothetical license, especially as applied as an uncapped royalty rate to the entire unapportioned revenue base for the Accused Products, and therefore cannot satisfy its burden of proving that the Keysight Settlement is sufficiently comparable to support a reasonable royalty in this case. *See MLC*, 10 F.4th at 1375; *see* Trial Tr. 1678:18-1679:25. This is particularly true in view of the numerous comparable and more reliable agreements that PAN presented at trial and which Centripetal did not rely on in establishing its reasonable royalty. *See* Trial Tr. at 1602:21-1613:25 (Nielson testifying as to technical comparability of numerous PAN and Centripetal patent purchase/license agreements); *see id.* 1680:8-1693:2 (Bakewell testifying as to economic comparability of those agreements); *see ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 873 (Fed. Cir. 2010) (permitting the reliance on settlement agreement only where it is the most reliable evidence of a reasonable royalty).

With all the evidence presented, Centripetal failed as a matter of law to carry its burden of establishing a reasonable royalty. *See Id.* at 873 (royalty based on “speculative evidence” violates requirement that damages under § 284 be “adequate to compensate for the infringement”).

2. *There is no legally sufficient evidentiary basis from which to determine a reasonable royalty that reflects the value attributable to the patented inventions alone*

Centripetal separately failed to present evidence that properly apportioned out the incremental value of the patented invention over the non-accused components of the Accused Products, as the law requires. *See* ECF No. 820 at 16-18. Centripetal’s evidentiary failure is further confirmed by evidence presented during PAN’s case-in-chief.

For example, Mr. Zuk, Mr. Bakewell, and Dr. Villasenor testified that the accused features represent a small fraction of the total features in the Accused Products. Trial Tr. 1325:20-1327:9

(“Centripetal is accusing one or two features out of more than a thousand” in the accused NGFWs); *see also id.* at 1327:23-1328:14 (testifying that the accused features of the accused combination of Panorama and NGFW is “less than 1 percent of those features”); *see also id.* 1455:20-1456:15, 1705:19-1707:4; DX-36; DX-31. Yet Mr. Malackowski failed to properly apportion out the value of those components to isolate the limited incremental value of the Asserted Patents. *See* Trial Tr. 1593:21-1602:2 (Nielson testimony as to the limited incremental value of the Asserted Patents). Mr. Bakewell testified that these features must be separated out from the reasonable royalty to ensure it is tied to the incremental value of the Asserted Patents, and Mr. Malackowski’s failure to do so renders Centripetal’s reasonable royalty unreliable. Trial Tr. 1703:2-1707:7.

As explained in PAN’s initial motion for JMOL, Centripetal’s “built-in” apportionment theory is likewise without legal or evidentiary support. It is not enough for Centripetal to merely identify a “comparable” agreement. Indeed, the Federal Circuit has found built-in apportionment to be appropriate only in limited circumstances involving complete identity of parties, patents, and accused technology, or a reliable analysis of the differences between the licensed technology and the accused technology. *See MLC*, 10 F.4th 1375; *see also Biedermann Techs. GmbH & Co. KG v. K2M, Inc.*, No. 2:18-cv-585, 2021 WL 6034269, at *16-19 (E.D. Va. Dec. 10, 2021). The evidence presented at trial, including testimony from both parties’ witnesses, establishes that the Keysight Settlement involved different parties, different patents, and different accused technologies and therefore the alleged apportionment of the Keysight Settlement royalty rate as to the Keysight products cannot be applied here absent a reliable analysis of the differences between the licensed technology and the accused technology. Trial Tr. 1196:11-13, 1190:9-15, 748:21-751:21, 1672:8-1677:4, 1453:20-1456:14, 1345:9-21. The failure to correct that is fatal. *See* ECF No. 820 at 16-18.

There is therefore no legally sufficient evidentiary basis on which the jury could find that the reasonable royalty should be applied to the unapportioned invoiced billings for the Accused Products, and judgment as a matter of law is required. *Power Integrations, Inc.*, 904 F.3d 965 at 978 (vacating denial of motion for a new trial because patentee had not shown that patented feature was “sole driver of customer demand” or “substantially creates” value of component parts” and otherwise failed to apportion value of patented feature to overall accused product).

3. *There is no legally sufficient evidentiary basis to determine the appropriate royalty base for each accused product/combination.*

Centripetal failed to present evidence linking its requested royalty to its infringement theories in this case. For example, Centripetal’s infringement theories are based on specific product combinations, yet the royalty base figures Mr. Malackowski presented to the jury are broken out by product rather than product combination. *See, e.g.*, JM-DM.44. For example, he presented the jury with a royalty base for *all* NGFW models, rather than breaking out NGFWs without ACE (for the ’903 Patent) and or NGFWs sold to customers who also purchased Panorama (for the ’437 Patent). Mr. Malackowski offers no evidence from which the jury could determine which portion of that base applies to Centripetal’s various infringement allegations (*e.g.*, NGFWs without ACE, or NGFWs sold to the customers that purchase Panorama). *See* Trial Tr. 1699:20-1701:17 (Bakewell testifying there is no way to determine royalty base or final royalty for any one of the accused combinations). Mr. Malackowski testified he did not double-count for overlapping product combinations, Trial Tr. 1140:4-20, but that does not cure his failure to identify the specific royalty base attributable to each allegedly infringing combination.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 31, 2024, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will automatically send notification of electronic filing to all counsel of record.

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